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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/716,828	11/19/2003	Sehyun Kim	47003-030003	8042
41068	7590	09/02/2005	EXAMINER	
BUCHANAN INGERSOLL PC 1835 MARKET STREET, 14TH FLOOR PHILADELPHIA, PA 19103-2985			JACKSON, MONIQUE R	
			ART UNIT	PAPER NUMBER

1773

DATE MAILED: 09/02/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/716,828

Applicant(s)

KIM, SEHYUN

Examiner

Monique R. Jackson

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|--|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>11/03 & 3/05</u> | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claims 1-21 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. Claims 1, 5, 10, 14 and 17 recite the limitations “said xylene insoluble fraction having a meso run length of less than or equal to 130” and “the ratio, r , of the meso run length of the xylene insoluble fraction to the percent content of the xylene soluble fraction in said polypropylene homopolymer is 22 or less” however the original disclosure at the time of filing provides no guidance to one of ordinary skill in the art as to how a propylene homopolymer having these properties can be produced. Upon a thorough review of the disclosure, the Examiner notes that the Applicant recites that the “propylene homopolymers of the present invention attain these properties by control of the average meso sequence length, N_m , in the xylene insoluble phase of the polymer concurrently with control of the quantity of xylene solubles in the polymer as a whole” (Abstract) and also recites in Paragraph 0002, that “these characteristics are not easily obtained and depend on the catalyst system employed for the production of the polypropylene” wherein “these characteristics” refer to isotacticity and xylene insoluble fraction. However, the Examiner notes that nowhere in the instant disclosure does the Applicant discuss the polymerization process or

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the catalyst system required in order to produce a propylene homopolymer having the claimed characteristics. In fact, in Paragraph 0006 of the disclosure, the Applicant further states:

A study was performed focusing on obtaining a better understanding of the structure-processing-properties relationships in BOPP films. It is known that the polypropylene should have at least a certain amount of atactic polypropylene, i.e., xylene solubles, to have good processability. However, the amount xylene solubles alone does not guarantee the processability of a polypropylene. Through this study it was determined that by balancing two characteristics of a propylene homopolymer, namely the quantity of xylene solubles and the average meso sequence length, N_m , of the xylene insoluble fraction, consistent processability of propylene homopolymer as a core material in BOPP film manufacture can be obtained.

Hence it appears as if the Applicant's study was on the relationship of these properties in known polypropylene homopolymers and not on controlling the polymerization process in order to control the average meso length and xylene insoluble fraction. This conclusion is further supported by the fact that the examples provided in Paragraph 0022 only report data collected for various propylene homopolymers with no indication as to whether the tested homopolymers were produced by the Applicant or merely commercially available polymers that were just tested by the Applicant. If the Applicant did in fact utilize commercial products, the Examiner notes that the Applicant is not entitled to a patent for a commercially available product that the Applicant has merely tested for a particular property that is inherent to the product.

The Examiner further notes that there are numerous catalysts systems utilized in the art to produce propylene homopolymers wherein, as admitted by the Applicant, the type of catalyst would affect the xylene soluble fraction as well as the average meso sequence length. Further, additional polymerization conditions such as monomer feed, reactor temperature, reactor pressure, as well as the use of a co-catalyst would also affect these two properties. Therefore, considering the number of variables to consider in the polymerization process and the fact that

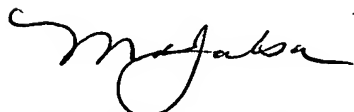
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one having ordinary skill in the art, or even one having above ordinary skill in the art, could not completely control the polymerization reaction under a particular set of conditions to produce the claimed properties, the Examiner takes the position that the level of unpredictability in the art is such that the original disclosure at the time of filing does not describe the claimed subject matter in a way that one skilled in the art could make the invention without performing undue experimentation.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Monique R. Jackson whose telephone number is 571-272-1508. The examiner can normally be reached on Mondays-Thursdays, 8:00AM-4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Carol Chaney can be reached on 571-272-1284. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Monique R. Jackson
Primary Examiner
Technology Center 1700
August 22, 2005